

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER 88-009

WASTE DISCHARGE REQUIREMENTS FOR:

U.S. DEPARTMENT OF INTERIOR (NATIONAL PARK SERVICE)  
GOLDEN GATE NATIONAL RECREATIONAL AREA (MUIR WOODS NATIONAL  
MONUMENT), MARIN COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (the Board) finds that:

1. The Department of the Interior, National Park Service (the discharger) manages the Muir Woods National Monument, part of the Golden Gate National Recreational Area (GGNRA). The discharger submitted a Report of Waste Discharge dated September 15, 1987, for the discharge of domestic waste from facilities at the Muir Woods National Monument in Marin County.
2. Sewage collection and treatment facilities at Muir Woods serve approximately 1.4 million visitors per year at present. The wastewater flow ranges from 4,500 gallons per day (GPD) in the winter to 14,500 GPD in the summer. The discharger projects annual visitation to peak at 2 million visitors by 2006, with wastewater flows of 7,000 - 20,500 GPD. The wastewater is generated from 2 residences, one ranger station, and a concession stand and 2 restrooms serving the public.
3. The wastewater facilities at present consist of 2 pump-stations; one feeding into 2 above-ground, 5,000 gallon septic tanks, and the other taking the septic tank effluent into two leachfields. The leachfields are in a meadow south of the visitor facilities, adjacent to Redwood Creek. Redwood creek flows through the Monument, and enters the ocean along the unincorporated community of Muir Beach.
4. The discharger has had several on-site systems in the past. Originally, cesspools were used. Several conventional septic systems were later employed, of increasingly greater size to accomodate increasing annual visitation. The present leachfield was built in 1967.
5. The discharger has experienced operational difficulties with their waste treatment systems. There has been inadequate treatment capacity. To compensate, low-flow fixtures have been used, but there have been maintenance and odor problems. There has been a large amount of infiltration

into the aging collection system in the winter. In addition, the leachfield is located in a area with a seasonally high groundwater table.

6. On February 2, 1987, the discharger observed the surfacing of effluent from their leachfield. They sampled Redwood Creek up- and downstream of the leachfield. Higher coliform counts were found downstream of the leachfield area, indicating possible bacterial contamination. Redwood Creek is pristine, and is one of the few streams on the West Coast that has not seen a large decrease in the amount of silver Salmon spawning. The downstream community of Muir Beach derives their water supply from a series of wells near the Creek.
7. We recommended that the discharger cease the use of their leachfield, and to haul away the wastewater until the groundwater table subsided, and repair measures could be taken. The discharger complied. The discharger replaced the existing septic tank with two, above ground ones, and made repairs to the collection system to reduce infiltration. Monitoring wells were added. The leachfields are not used, and wastewater hauled, whenever the groundwater table rises to within 3 feet of the leachfields. The discharger limited flow to the leachfields by the using portable toilets.
8. The discharger started to examine long-term plans for their wastewater disposal. Such a study was previously conducted in 1972, but no action had been taken. The discharger studied four alternatives: building another leachfield on an upland site, spray irrigation, stream disposal, and pumping wastewater to a POTW for treatment.
9. Stream disposal was eliminated as it would be infeasible to treat the waste to such a point that the Creek's quality could be maintained. Spray irrigation and subsurface disposal require reasonably level areas with adequate soil cover, and such areas are not available in the Monument.
10. The discharger's final proposal was to pump wastewater out of the Monument for eventual treatment by the Sausalito-Marin City Sanitary District. The discharger proposed to provide 24 hours of storage, to avoid pumping during daylight or wet-weather periods, when the Sausalito plant's capacity was limited. Solids collection would be provided. The wastewater would be pumped by two 100 GPM pumps, through a 8,700 foot long, 4" force-main. The wastewater would enter the collection system of the Tamalpais Valley Community Services District, thence to the Sausalito collection system and treatment plant. The discharger would continue to use low-flow fixtures.
11. The discharger proposed to fund this project in the 1989 Congressional budget, with construction to start in the

summer of 1989. Preliminary design work has been completed, and the discharger is now negotiating with the Services District and the Sanitary District.

12. The discharger is not currently subject to Waste discharge requirements.
13. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 18, 1987. The Basin Plan prohibits the discharge of raw sewage or any waste failing to meet waste discharge requirements to any waters of the Basin.
14. The Basin Plan identifies the following beneficial uses of Redwood Creek and the Pacific Ocean:
  - Industrial service supply (Pacific)
  - Navigation (Pacific)
  - Water-contact and non-contact recreation (Both)
  - Commercial and sport fishing (Pacific)
  - Preservation of Areas of Special Biological Significance (Pacific)
  - Wildlife habitat (Both)
  - Preservation of rare and endangered species (Pacific)
  - Marine habitat (Pacific)
  - Fish migration (Both)
  - Fish spawning (Both)
  - Shellfishing harvesting (Pacific)
  - Estuarine habitat (Pacific)
15. Adoption of waste discharge requirements is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 et. seq.) pursuant to Section 13389 of the California Water Code.
16. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
17. The Board, in a properly-noticed public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the U.S. Department of Interior in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Specifications

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The disposal of waste shall not cause degradation of the ground or surface water suitable for domestic water supply or cause an increase in any quality parameter that would impair beneficial uses of said waters.
3. The wastewater shall not surface in the disposal field.

B. Prohibitions

1. Prior to compliance with Prohibition 2, by completion of the sewer connection to the Sausalito-Marín City Sanitary District, wastewater shall not be discharged to waters of the State, via either surface flow or surfacng after percolation.
2. Wastewater shall not be discharged from Muir Wood's wastewater facilities to waters of the State, including subsurface discharges.
3. The wastewater flow to the leachfields shall not exceed 3,000 GPD. The excess flow is to be hauled away for treatment.
4. The use of the leachfields is to cease one week after the groundwater table rises to within 3 feet below the disposal trenches. All wastewater is to be hauled away for treatment. The use of the leachfield may be resumed one week after the groundwater table again drops to at least three feet below the disposal trenches, though as noted in Prohibition 3, the flow is limited to 3,000 GPD.

C. Provisions

1. The discharger shall meet the following schedule for compliance with Prohibition 2:

<u>Task</u>	<u>Compliance Date</u>
a. Demonstrate availability of project funding	January 1, 1989
b. Issue bids for construction	February 28, 1989

- c. Begin project construction                      May 1, 1989
- d. Finish project construction                      November 30, 1989

The discharger shall submit compliance reports for tasks c and d within 30 days after the compliance date. The report should document compliance or, if non-compliance is being reported, should explain the reasons for non-compliance and project when compliance can be obtained.

- 2. The discharger shall file with the Regional Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
- 3. The discharger shall permit the Board or its authorized representative in accordance with California Water Code Section 13267(c):
  - a. Entry upon premises in which an effluent source is located or in which any required records are kept;
  - b. Access to copy any records required to be kept under terms and conditions of this Order;
  - c. Inspection of monitoring equipment or records;
  - d. Sampling of any discharge
- 4. The discharger shall comply with the self-monitoring program as adopted by this Board and as may be amended by the Executive Officer.
- 5. This Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 20, 1988.

  
ROGER B. JAMES  
Executive Officer

Attachment:

Self-Monitoring Program  
Location Maps: Existing and proposed facilities

FIGURE 1

LOCATION MAP

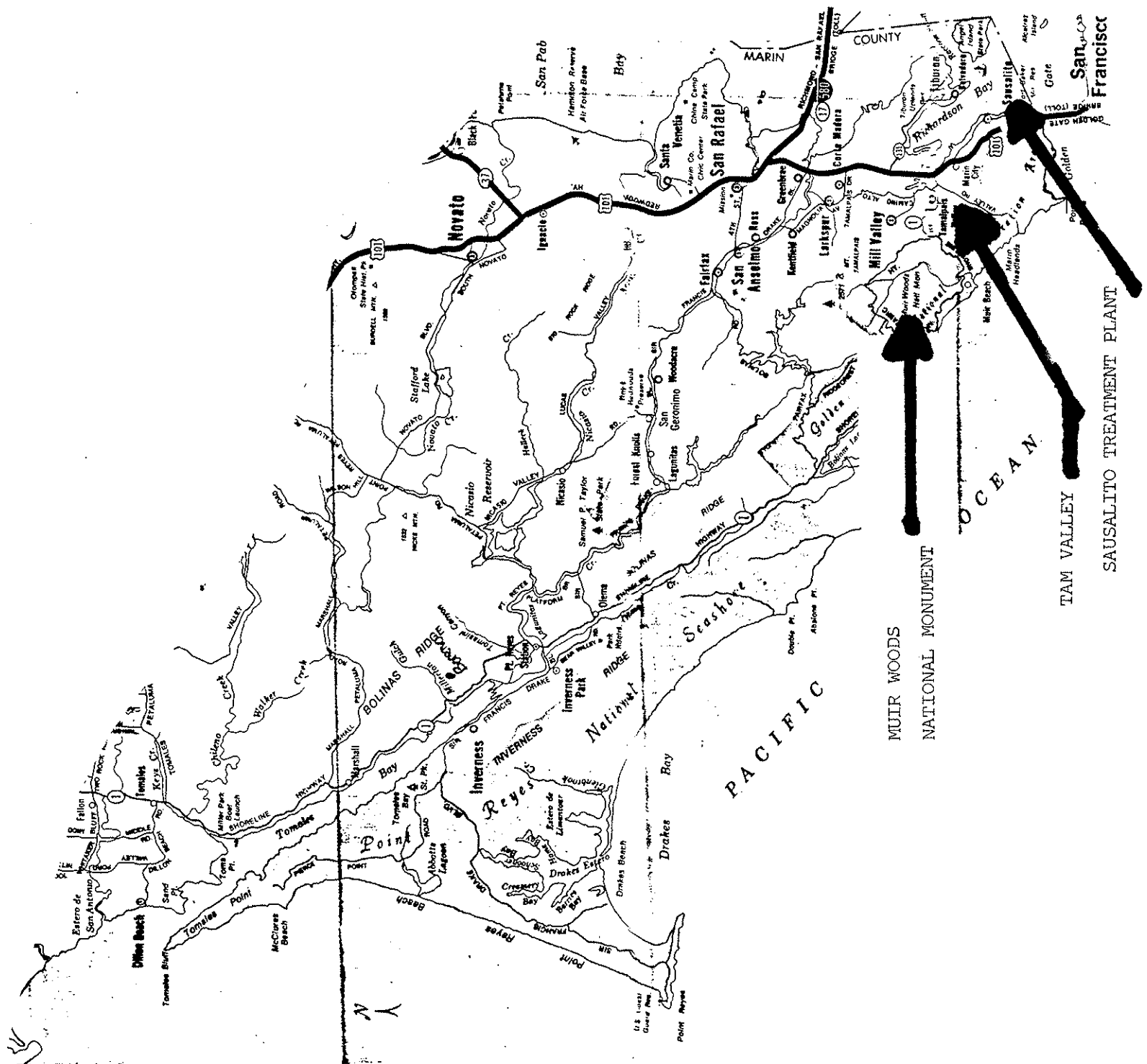
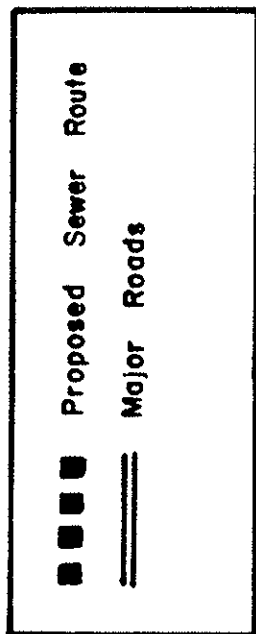
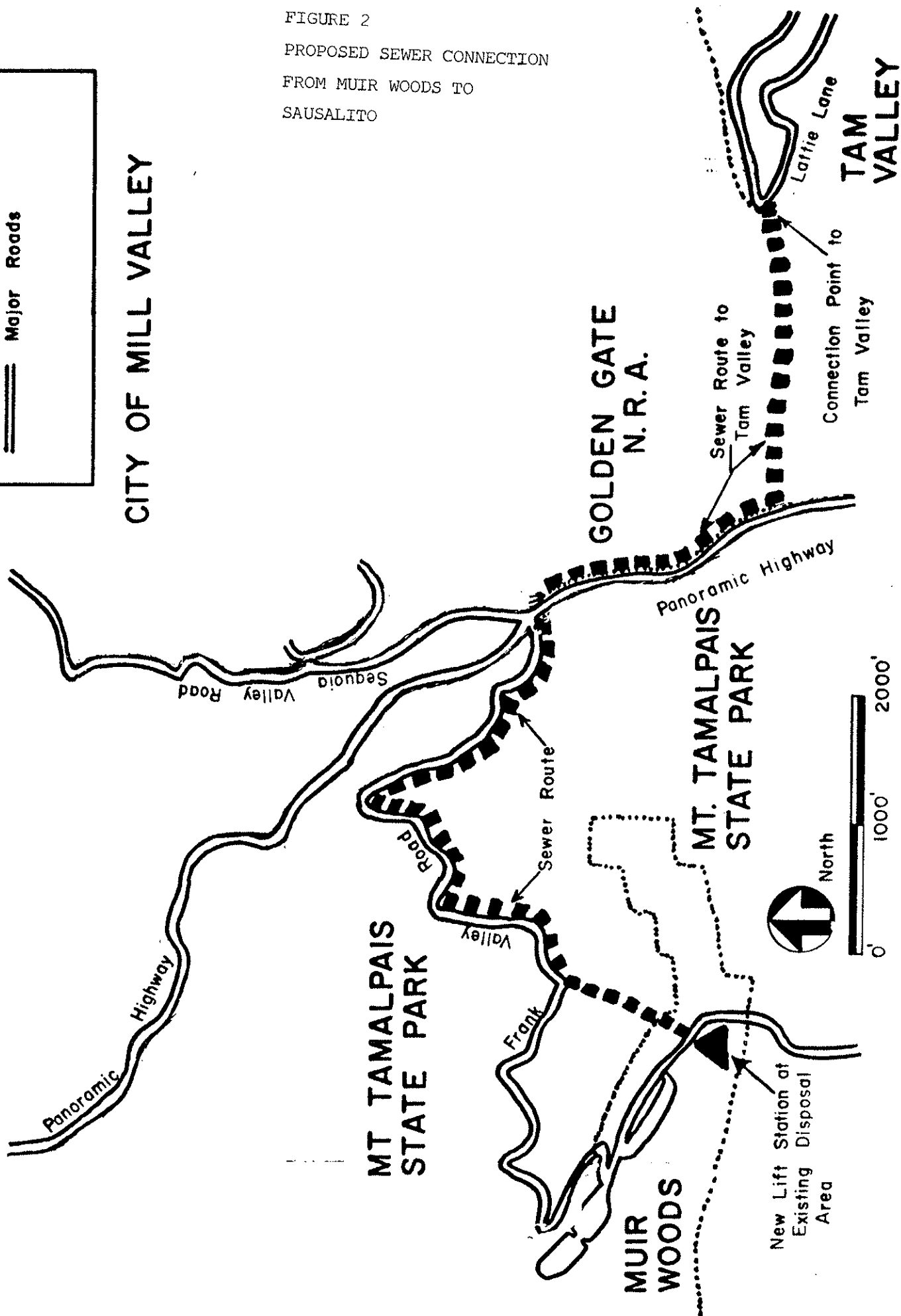


FIGURE 2  
 PROPOSED SEWER CONNECTION  
 FROM MUIR WOODS TO  
 SAUSALITO



CITY OF MILL VALLEY



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

FINAL SELF-MONITORING PROGRAM  
FOR

U.S. Department of Interior  
Golden Gate National Recreational Area  
Muir Woods National Monument  
Marin County

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. The principal purposes of a self-monitoring program are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board
2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

II. DESCRIPTION OF SAMPLING STATIONS, SCHEDULE OF SAMPLING ANALYZES AND OBSERVATIONS

The following sampling & observations will be required when the leachfields are in use prior to abandonment.

1. The groundwater level within the vicinity of the disposal area is to be measured weekly
2. Monthly, the ground water midway between the disposal field and the Creek is to be sampled for total and fecal coliforms.
3. Weekly, the disposal area and collection system are to be observed for any odors or surfacing of effluent. If effluent is noted in the disposal area, the Creek is to be sampled immediately upstream and downstream for fecal and total coliforms, once per day, until further notice from this office.
4. A record of the volume of wastewater hauled, is to be maintained. The date and time of hauling is also to be recorded.
5. The volume of wastewater sent to the leachfield, as estimated by volume of water use, is to be recorded as a daily average.

III. REPORTS TO BE FILED WITH THE BOARD

A. Violations of Requirements

In the event the discharger is unable to comply with the conditions of the waste discharge requirements due to:

-maintenance work, power failures, or breakdown of

- maintenance work, power failures, or breakdown of waste treatment equipment
- bypassing of untreated or partially treated wastewater
- accidents caused by human error or negligence
- other causes such as acts of nature

The discharger shall notify the Board office by telephone (415-464-1255) as soon as he or his agents have knowledge of the incident and shall confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problem from recurring.

B. Self-Monitoring Reports

Written reports shall be filed monthly. All reports are to be submitted by the fifteenth day of the following month. The reports shall include:

1. Letter of transmittal: A letter transmitting self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken for correcting violations, such as plant operation modifications. The letter transmitting monitoring reports shall be signed by the District Superintendent or his duly authorized personnel.

The letter shall contain the following statement: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

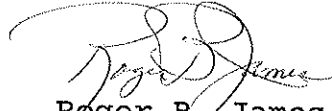
2. Data: All results observed or analyzed per the requirements of section II, including dates and times of sampling and observations.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order no. 88-009.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

  
Roger B. James  
Executive Officer

Effective Date: *JANUARY 22, 1988*